

# ED NURSING™

Inside: 2002 reader survey

Vol. 5, No. 6

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**April  
2002**

## Don't overlook bullying: Here are ways to help pediatric patients in need

*Recurring ED visits may mask a hidden problem*

Two young men go on a shooting rampage in their Littleton, CO, high school, killing 13 students and themselves. A 15-year-old Santee, CA, boy kills two students and wounds 13. An eighth-grade girl shoots a classmate in Williamsport, PA.

What do all of the above scenarios have in common? All of the shooters were victims of bullying.

"This is a topic that is ignored by many health care professionals," according to **Terri Richards, RN, MA**, an ED nurse at Children's Hospital in Columbus, OH, and a school nurse for Teays Valley Schools in Ashville, OH.

As an ED nurse, you probably tend to focus on the presenting complaint or the acute problem that brought the child to the ED, she explains.

"We are not always in tune with the social and emotional aspects of the patient's life," she says. "We may see physical injuries from fights or attacks, and may even hear them tell us it was from a bully or someone who has been harassing them. But seldom do we have a clear picture of the whole story."

Always take a child's claims seriously, and remember that bullying can lead to serious injuries and even murder, warns Richards.

### EXECUTIVE SUMMARY

If a child comes to your ED with frequent headaches or abdominal pain, the actual problem may be bullying.

- Inform the child that bullying is unacceptable, and encourage him or her to discuss the problem with a trusted adult.
- Have a social worker interview the child or family, or refer the patient to a counselor.
- Contact the school nurse or principal to inform him or her of the situation without disclosing the child's name.

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“When a 14-year-old boy was brought to us with 80%-90% body burns, he was conscious at first. He was able to tell us who it was that did this to him, and that they had been harassing him before,” she says. “The boy died the next day.”

Don’t ever underestimate the fear that a bullied child feels, says **Pamela A. Sanborn**, RN, MSN, PNP, CEN, an ED nurse at Mount Auburn Hospital in Cambridge, MA.

“Some children are picked on because they are shy, sensitive, anxious, insecure, overweight, physically small, disabled, or belong to a different race or religious faith,” she adds.

The victim feels isolated from their peers, who often reject him or her out of fear that they too will become a target of bullies, she says. “These feelings of isolation can lead to suicide or eventual violent retaliation by victims,” says Sanborn.

Here are effective strategies to take when you suspect a child is a victim of bullying:

- **Have a high index of suspicion.**

If a child frequently comes to your ED with headaches, abdominal pain, or sleeping difficulties with no physical cause after a thorough physical examination, it may be a sign that bullying is occurring, says Richards.

“I recall several incidents of parents saying that their child is frequently ill while at school, but there is no problem once they get to the ED,” she says.

When a 9-year-old girl came to the ED several times because of breathing problems, it was discovered that the visits always occurred before gym class.

“She eventually confided in her mom that the gym teacher chastised her for not running fast enough and would make the whole class watch her finish the required distance,” says Richards. “The girl had begun forcing herself to wheeze or hyperventilate prior to gym class.”

Research has linked health problems such as headaches with bullying, notes Sanborn.<sup>1</sup>

“Is it constipation, early appendicitis, urinary tract infection, gastroenteritis, or migraine?” she asks. “If all tests are negative and the child does not have any physical findings on examination, it may be time to think of bullying.”

**Kate Reeves**, RN, MA, CHPN, former administrative director of the ED at St. Joseph Hospital in Orange, CA, says she has seen many children whose

symptoms were psychosomatic because of school-related problems. The most common symptoms were chronic stomachache or headache, Reeves says. “Some of them got ‘million-dollar work-ups’ before the real problem was uncovered,” she says.

- **Speak openly about the problem with the child.**

The key message to get across to the victim is: It is not your fault that you are being bullied, and you do not have to face this on your own, says Sanborn. “The next step is to teach the child prevention methods,” she says. “The nurse *must* find time to do this. If not, a hospital social worker should be called immediately.”

Richards advises talking openly with the child about ways to avoid being bullied. **(See related story on what to say to parents and children, p. 75.)**

“Let the child know that intimidation is unacceptable,” she says. “Encourage them to talk to a trusted adult such as a parent, teacher, school counselor, or nurse,” she says.

Children may be unaware of their own rights and resources available to them, stresses Richards. “School nurses are an excellent starting point to refer the child,” she says.

- **Involve the child’s parents.**

Begin by asking the parents if the child is having problems in school, says Richards. “Ask if they suspect their child is being bullied,” she recommends. “Ask how often the child visits the school nurse or gets ill at school.”

Reeves advises discussing the problem with the parents away from the child’s hearing. “We can’t solve all the problems of the world, but some parents are oblivious,” she adds.

However, Richards cautions that you should make sure your actions aren’t mistaken for professional counseling. “Ask a social worker to interview the child or family,” she suggests. “If a social worker is not available, referrals to a mental health worker should be part of the care given to the child.”

- **Contact school nurses.**

Bullying is one of the most underrated problems in schools today, and the negative effects can last a lifetime, according to Sanborn. “Teachers, students, parents, school administrators, and health care professionals must work together as a team to take action against bullying,” she says.

ED nurses should be more proactive in contacting schools when there is evidence of bullying, argues

## COMING IN FUTURE MONTHS

■ Effective strategies to screen for child abuse

■ Steps to take after a needlestick injury

■ Update on treatment of headaches

■ New drug for congestive heart failure

## SOURCES AND RESOURCES

For more information about treating children who are victims of bullying, contact:

- **Kate Reeves**, RN, MA, CHPN, 70990 Star Shadow Road, RC-163, Mountain Center, CA 92561. Telephone: (760) 349-3394. E-mail: kreeves@royal-carrizo.com.
- **Terri Richards**, RN, MA, Emergency Department, Children's Hospital, 700 Children's Drive, Columbus, OH 43205. Telephone: (614) 722-4300. E-mail: trichards@teays-valley.k12.oh.us.
- **Pamela A. Sanborn**, MS, RN, CPNP, CEN, 143 Currier Road, Andover, NH 03216-9712.

A Centers for Disease Control and Prevention (CDC) report published Dec. 7, 2001, titled *School Health Guidelines to Prevent Unintentional Injuries and Violence*, addresses prevention of bullying. The complete report can be accessed free at the CDC web site ([www.cdc.gov/mmwr/preview/mmwrhtml/rr5022a1.htm](http://www.cdc.gov/mmwr/preview/mmwrhtml/rr5022a1.htm)). Or to obtain a paper copy for \$3.50, contact:

- **Superintendent of Documents**, U.S. Government Printing Office, P.O. Box 371954, Pittsburgh, PA 15250. Telephone: (202) 512-1800.

Handouts for parents and children are available, including "How can I tell if my child is being bullied?" and "Recognizing and reporting early warning signs." Up to three handouts can be ordered free of charge at [www.keystosaferschools.com](http://www.keystosaferschools.com). (Click on "Free Services," and "Free Handouts.") For more information, contact:

- **Keys to Safer Schools**, P.O. Box 296, Bryant, AR 72089-0296. Telephone: (877) 978-7678 or (501) 847-5225. Fax: (501) 847-0148. E-mail: keys@keystosaferschools.com. E-mail: PAS@mail.tds.net.

Reeves. "This is not a break in confidentiality because specific names don't need to be used," she says. She suggests using the following script:

"Hi, I'm Sally Smith, the evening charge nurse at St. Elsewhere. We have just cared for a child from Jones Street Elementary who has told us he was injured because the big boys pushed him around on the playground. I thought you should know about this because it can become a major issue, especially if the parents press charges. This little boy is in second grade, and he tells us this happens all the time at your school."

You also can contact the school principal. Again, you can protect the child's identity unless the parents give you specific permission to share it, says Reeves. "These type of contacts need to be made, because parents are often afraid to complain for fear of retaliation," she says.

Another approach is to ask for written consent from the parent so you can share specific information with the school, Richards suggests.

"This can be more effective than a general statement about a bully situation, because the schools may not take the call as seriously without a name and specifics," she says.

Richards acknowledges that time restraints may make these interventions difficult, especially if you work the night shift. "In a perfect world, this would happen. But in our ED, where there are more than 200 patients a day, this is often impossible," she says.

If time won't permit you to make these calls yourself, Richards recommends strongly encouraging families to do so on their own. "Explain that the school nurse will be able to follow up and provide a continuity impossible in the ED," she says.

### Reference

1. Williams K, Chambers M, Logan S, et al. Association of common health symptoms with bullying in primary school children. *BMJ* 1996; 313:17-19. ■

## Here's what to tell victims of bullying

If you suspect a child is a victim of bullying, ask the following questions, advises **Terri Richards**, RN, MA, an ED nurse at Children's Hospital in Columbus, OH, and a school nurse at Teays Valley Schools in Ashville, OH:

- People frequently become ill as a result of the stress and fear caused by threats, taunting, or name-calling. Is this something that is happening to you?

- Are there any people making threats to you?
- Are you being threatened in any way?
- Have you ever been teased or threatened at school? Home? Anywhere else?

What kind of things are you teased about? What threats have been made?

- Who is making the threats? One or more persons?
- Where does it happen? Just at school or at home as well?
- At recess, whom do you play with?

- Do any adults know? Who have you told?
- Have any threats actually been carried out?
- Are there any witnesses?
- How long has this been going on?
- Is anyone else being bullied?

If a child acknowledges being bullied, **Kate Reeves**, RN, MA, CHPN, former administrative director of the ED at St. Joseph Hospital in Orange, CA, recommends saying the following:

“Do not allow yourself to be a victim. Arguing or fighting back can only escalate the situation. If the bullying is physical, try to avoid any situation where you will be alone with the bully. Do not let him or her have the opportunity to bully you. Don’t act scared. Stand up straight and tall and look the bully in the eye. But do not place yourself in jeopardy. If the situation is serious, it may require intervention by other people. Go to a teacher, a friend’s parent, the principal, a counselor,

and/or your parents. Finally, remember you do not deserve to be bullied. Nobody does. Don’t live with it, or think that it’s something you’re doing wrong. You are a great person, so put the end to the bullying now.”

Reeves recommends giving parents the following strategies:

1. Discuss this with the child’s teacher, principal, school nurse, and guidance counselor.
2. If you are not happy with the school’s response, do not give up. There are other resources and help available, including the school board, school attorney, and local law enforcement. The key is not to give up.
3. Support and understanding at home are important in helping the child cope with the bullying. Spend time with your child. Show him or her in words and actions that he or she is valued.
4. Remember the health care professional is there to help you and your child. ■



## Try these tips for pediatric seizures

Do you know how to care for a pediatric patient who is actively seizing?

“If a child has had a seizure at home, they will frequently seize again in the ED,” warns **Nancy Blake**, RN, MN, CCRN, CNAA, director of critical care services at Children’s Hospital in Los Angeles.

Here are interventions to take if this occurs:

- **Address appropriate initial management of the seizing child.**

Regardless of what caused the seizure, you must do three things: establish a patent airway, provide effective ventilation, and obtain vascular access for anticonvulsant administration, according to **Laura M. Criddle**, MS, RN, CS, CEN, CCRN, CNRN, emergency, trauma, and neurological clinical nurse specialist at Oregon Health and Sciences University in Portland.

“If IV access is not readily available, diazepam may be administered rectally,” she adds.

Criddle notes that anticonvulsant administration is essential, “since seizure activity places a tremendous metabolic demand on the body and brain that cannot be tolerated indefinitely,” she says.

She adds that prolonged status seizures can result in cerebral anoxia, hyperthermia, severe electrolyte disturbances, and rhabdomyolysis.

“You need to make sure the child is in a safe position on a gurney, with the side rails up and padded,” advises Blake. “They should be slightly on their side, so they won’t aspirate in case they vomit.”

- **Once the child is stabilized, investigate what caused the seizure.**

Criddle gives the following common seizure precipitants in pediatric patients: head injury, cerebral spinal fluid infections, cerebral-peritoneal shunt malfunction, fever, toxicities, and anoxic insults such as near drowning or suffocation. Other possible causes include tumors, arteriovenous malformations, brain abscesses and parasites, metabolic and electrolyte abnormalities, hypoglycemia, and genetic defects, she says. “However, a large proportion of pediatric

### EXECUTIVE SUMMARY

If a child has a seizure in your ED, you must establish a patent airway, provide effective ventilation, and obtain vascular access for anticonvulsant administration.

- Prolonged seizure activity could cause brain injury as a result of decreased oxygen supply to the blood.
- If the child is in status epilepticus, give intravenous Ativan to stop the seizures.
- Consider that a child with a known seizure disorder may have a low phenobarb level.

seizures are idiopathic,” Criddle adds.

- **Give medication as appropriate.**

The child may be in status epilepticus and require medication to stop the seizures, says Blake.

“If the patient is in status epilepticus, they can be given Ativan [Wyeth, Philadelphia] intravenously with careful monitoring of their airway and breathing,” she advises.

Blake warns that prolonged seizure activity could result in compromised air exchange. “The child could have brain injury as a result of decreased oxygen supply to the blood,” she says.

- **Make sure the airway is maintained.**

If a patient is about to have a seizure, make sure that he or she is in a position to keep their airway open, says Blake. “On their side is the best place for them to be,” she says.

Don’t try to force anything in their mouth or put your fingers in their mouth, or you could get bitten, Blake cautions.

- **Be sure the environment is safe.**

Make sure there are no objects nearby that could harm the child, says Blake.

“Padding the side rails [of the bed] of a known seizure patient or a patient in status epilepticus is a very good idea,” she adds.

- **Don’t hold down a child who is seizing.**

“You could actually cause more harm by doing this,” Blake says.

- **Educate parents about seizures.**

Although parents should be encouraged to obtain follow-up care, explain that just because a child has had one seizure doesn’t mean that he or she will have another, says Blake.

A common misconception about pediatric seizures is that they are a result of some type of brain damage, Blake adds. “Many children have febrile seizures because they have a fever,” she says.

- **Bring fevers down with medication, not cold water.**

Acetaminophen and ibuprofen can be used to bring down a fever in children, Blake says.

Children should not be put in a bathtub with cold water to bring down their fever, she advises.

“The water should be at room temperature,” adds Blake. “Putting a child in a cold bath can cause them to shiver, which would just raise the fever even higher.”

- **Don’t overmedicate children.**

Criddle warns that careful drug dosing is required for children with status seizures.

“Medication is essential to stop the brain’s random firing,” she says. “But overmedication puts the child at risk for respiratory and cardiovascular depression and may lead to unnecessary intubation.”

Paralytic drugs are occasionally given for prolonged

## SOURCES

For more information on pediatric seizures, contact:

- **Nancy Blake**, RN, MN, CCRN, CNA, Director of Critical Care Services, Children’s Hospital Los Angeles, 4650 Sunset Blvd., Mailstop 74, Los Angeles, CA 90027. Telephone: (323) 669-2164. Fax: (323) 953-7987. E-mail: nblake@chla.usc.edu.
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seizures, but these limit only the body’s muscular response and do nothing to suppress cortical hyperactivity, Criddle notes.

- **Determine levels of phenobarb.**

If a child has a known seizure disorder, it is important to get a phenobarb level, says Blake.

“If they missed a dose or have been sick and unable to keep any medication down, they may just have a low phenobarb level,” she explains. “If that is the case, they may just need an additional dose. Once the level is up, the seizures may stop.” ■

## Case study: How would you manage this seizure?

While playing with his older brother, an 18-month-old boy suddenly went rigid, turned blue, fell backward, and experienced generalized tonic-clonic seizures. The child’s mother and grandparents scooped him up and rushed to a nearby emergencenter.

While applying oxygen and starting initial management, clinic personnel called 911, says **Laura M. Criddle**, MS, RN, CS, CEN, CCRN, CNRN, emergency, trauma, and neurological clinical nurse specialist at Oregon Health and Sciences University in Portland.

On the way to the hospital, paramedics established vascular access through an intraosseous line, administered diazepam, and orally intubated and manually ventilated the child.

Approximately 15 minutes after onset, the boy

arrived in the ED still actively seizing, recalls Criddle. “Despite phenytoin loading and multiple doses of lorazepam and phenobarbital, intermittent seizure activity continued, and there was no return of consciousness,” she says.

In the ED, nurses elicited a history from the family and were told that the child had no chronic medical problems, no history of trauma, took no medications, and had been healthy and behaving normally all day, says Criddle.

“He was afebrile, up-to-date on his immunizations, had never previously had a seizure, and had no family seizure history,” she adds.

According to Criddle, the ED work-up consisted of the following:

- A computerized tomography scan of the head was done to identify trauma, anoxic injury, intracerebral masses, or bleeding.
- Serum and urine toxicologic screens were done to detect possible poisoning.
- Glucose and electrolyte levels were drawn to look for abnormalities.
- A lumbar puncture was performed to rule out

meningitis or a subarachnoid hemorrhage.

“Nurses also assessed the patient and his family for any indications of nonaccidental trauma,” she adds.

Preliminary results of all studies and questioning gave no clue as to what caused the seizure, says Criddle. She adds that since there was little evidence of improvement, arrangements were made for the child to be transferred to a regional pediatric center for magnetic resonance imaging, intensive care unit admission, neurologic consultation, and continuous electroencephalogram monitoring.

Five days and many seizures later, the boy was discharged home. He was sleepy from the medications, but without any obvious neurological deficits, says Criddle. “No cause for his seizures was ever determined,” she reports.

Criddle notes that the pediatric brain is remarkably resilient, and a single episode of seizures does not necessarily indicate the presence of an epileptic condition that will result in an ongoing seizure disorder.

“This was the case with this boy, who has developed normally and has remained off medications and seizure-free for the past seven years,” she reports. ■

## Do you know how to comply with the 250-yard rule?

It may be the single most confusing aspect of the Emergency Medical Treatment and Active Labor Act (EMTALA): the infamous “250-yard rule.”

“The 250-yard rule was rated by one [Centers for Medicare & Medicaid Services] office as their No. 1 issue for 2002,” reports **Stephen Frew**, JD, risk manager at Physicians Insurance Co. of Wisconsin, based in Loves Park, IL, and former president of the Rockford, IL-based Frew Consulting Group, which specialized in EMTALA compliance. “This topic has a lot of people confused.”

The rule is a recent expansion of EMTALA regulations to cover areas surrounding the hospital and off-site locations, according to Frew.

“The rule says that the patient has presented to the hospital if they come to the hospital seeking care, or fall victim to a medical event or accident on hospital-controlled property within a 250-yard zone surrounding the main buildings of the hospital,” he explains.

The hospital must be made aware of the patient’s presence through one or more of its agents, employees, staff members, or medical staff members, he adds.

The rule came about after a young man was shot while playing basketball in an alley near Ravenswood

Hospital in Chicago, Frew explains. “Friends dragged him to the edge of the hospital property and sought assistance from ED personnel, who refused to leave the building to assist the patient, who died following a substantial delay in getting him into the ED,” he says.

Here are things to consider when developing a policy for the 250-yard rule:

- **Have a system to alert ED staff when an incident occurs.**

At United Hospital Medical Center in Port Chester, NY, if a patient succumbs to a medical problem or has an accident on hospital property, the operator pages the house officer, chief of security, and the ED nursing supervisor, according to **Kathie Carlson**, RN, MSN, CEN, patient care manager.

### EXECUTIVE SUMMARY

To comply with the Emergency Medical Treatment and Active Labor Act, you must provide care for patients within a 250-yard radius of your hospital.

- You need a system to ensure that ED staff are alerted if an incident occurs.
- Decide which individuals will respond first and what equipment will be brought to the scene.
- Personnel providing medical care at off-site locations should do only what they are qualified for.

# East Jefferson General Hospital (EJGH) Off-Site Location Screening Tool

Off-Site Location: \_\_\_\_\_

Chief Complaint (in patient's words): \_\_\_\_\_  
\_\_\_\_\_

Observations: \_\_\_\_\_  
\_\_\_\_\_

Vital Signs (if able): BP \_\_\_\_\_ Pulse \_\_\_\_\_ Respirations \_\_\_\_\_ Temperature \_\_\_\_\_

### Circulation

- Good pulse
- No obvious bleeding
- Capillary refill < 2 seconds
- Weak or absent pulse

### Airway/Breathing

- No respiratory distress
- Respiratory rate rapid/labored
- Respirations shallow
- Obvious respiratory distress

### Neuro Status

- Awake/alert/oriented
- Confused/abnormal

Care Instructions: \_\_\_\_\_  
\_\_\_\_\_  
Received from: \_\_\_\_\_

Care Provided: \_\_\_\_\_  
\_\_\_\_\_

You have presented for treatment to an EJGH facility that does not provide all of the services you may require to evaluate and/or treat your medical emergency. Options for appropriate treatment include EJGH Emergency Department, the closest hospital emergency department, or Health Finders at 456-5000.

- EMS called 911 — Emergency & EJGH Emergency Department contacted (454-4377).
- EMS called nonemergency.
- Patient chooses to go to another facility by private vehicle.
- Patient chooses to go to \_\_\_\_\_ emergency department by private vehicle.
- Patient chooses to leave and seek care on his or her own.

Patient Signature: \_\_\_\_\_

Signature of EJGH Team Member: \_\_\_\_\_

Source: East Jefferson General Hospital, Metairie, LA.

The following information is given:  
— location of incident;  
— approximate age of patient;  
— how the injury occurred;  
— whether the patient is conscious or unresponsive.

### • Bring appropriate equipment.

The ED nurse in charge reports to the scene in person or designates another ED nurse to report to the scene, says Carlson.

“We bring the ED medical record, stethoscope,

blood pressure cuff, a neck brace and some gauze,” she adds. “Usually the ambulance is there within minutes, so we probably wouldn’t need additional equipment.”

Security officers carry radios when they respond, so the hospital switchboard can be alerted if more equipment is needed, says Carlson.

### • Determine who your “first responder” will be.

At East Jefferson General Hospital in Metairie, LA, the hospital’s security officers are the first ones to respond to any emergency on the campus, says **Trudy**

## SOURCES

For more information on complying with the 250-yard rule, contact:

- **Kathie Carlson**, RN, MSN, CEN, Patient Care Manager, United Hospital Medical Center, Port Chester, NY 10573. Telephone: (914) 934-3087. Fax: (914) 934-3586. E-mail: kkarls@aol.com.
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### A. Meehan, RN, CHE, ED director.

“In turn, their dispatch will notify the ED of the situation and any equipment needed,” she says. “If the location is a distance from the ED, security will bring a car to the ED entrance and pick up a nurse and the necessary equipment.”

If the situation warrants, emergency medical services (EMS) also will be called, adds Meehan. “Our ED is on the second floor of the hospital and difficult to reach, not to mention the public perception of wheeling someone from one side of the hospital to the other and up an elevator to reach the ED,” she notes.

The key is to have a clear policy for who will respond, and in what order, says Meehan. “Essentially, security is the first responder, then the ED nurse, with emergency medical services as backup if needed,” she says.

#### • **Decide how the medical screening examination will be provided.**

For off-campus areas such as occupational medicine, a medical screening examination is provided by the most qualified person available, says Meehan.

“We also developed a form for our internal use that provides us the patient’s name, reason they presented to that particular location, the screening provided, and the credentials of the person providing the screening,” she adds. **(See Off-Site Location Screening Tool, p. 79.)**

Because there may not be a nurse or physician at these sites, Meehan stresses that individuals at remote sites should do no more than they are qualified for when providing medical care.

“They are instructed to call EMS if the situation warrants, and contact the ED to inform staff that they have

done so and provide a short report of the presenting patient’s condition,” she says.

#### • **Have a policy for transport as needed.**

Meehan reports that the county’s EMS policy always has required the patient to be taken to the nearest location if their condition is critical or life-threatening. “So we are covered as to the agreement with other hospitals between our off-site locations and our ED,” she explains.

If the patient is stable, they are taken to the hospital of their choice, provided that facility can provide appropriate care, Meehan says.

#### • **Include representatives from all sites to develop policy.**

When a policy was developed to comply with the 250-yard rule, a committee was formed including Meehan, the director of EMS, the ED director, the director of security, and the directors of all off-site facilities. **(See Care of Accident Victims of Hospital Property policy, inserted in this issue.)**

“This ensured we did not make policy that was beyond the scope of any area or location’s abilities,” she says. “Fortunately, to date, no one has mistaken our off-site locations as providers of emergency care.” ■

## Which sites fall under the 250-yard rule?

Now that the Emergency Medical Treatment and Active Labor Act (EMTALA) has expanded to include locations within 250 yards of the hospital’s main campus, ED managers have the burden of determining exactly which sites are covered, says **Stephen Frew**, JD, risk manager at Physicians Insurance Co. of Wisconsin, based in Loves Park, IL, and former president of the Rockford, IL-based Frew Consulting Group, which specialized in EMTALA compliance.

“Much of the confusion is over which locations are covered by the rule and which ones are not,” he reports.

This is particularly problematic with medical buildings, private testing areas, subcontracted services, and hospitals that have multiple corporate entities, he says.

The Centers for Medicaid & Medicare Services web site featured a posting to explain the regulation in July 2001, notes Frew. “The clarifications basically reiterate that the private offices of independent physician practices are not covered,” he says. “That produced no changes in our recommendations.”

East Jefferson General Hospital in Metairie, LA, has several facilities that are not located within the hospital itself, including adult day care, occupational medicine, and physician offices, says **Trudy A. Meehan**, RN, CHE,

administrative director of the ED.

“Also within the 250 yards is a fast-food restaurant, a pharmacy chain store, and three multilevel garages owned by the hospital,” she says. “Needless to say, developing our policy was interesting.”

First, the hospital determined that the pharmacy and restaurant were not part of the response area, says Meehan. She notes that EMTALA says that hospitals are not responsible for private businesses not owned by the hospital or public thoroughfares that fall into the 250-yard radius.

However, Meehan goes by the rule of thumb “when in doubt, respond.” “The bottom line is, if we are uncertain as to whether the area falls into our domain, we respond,” she says. “While I don’t expect staff to go into a busy street, they are capable of rendering first aid while waiting for EMS to respond, if that is indicated.”

The No. 1 priority is to take care of the patient, stresses Meehan. “I don’t want to be the feature on the 6 o’clock news as the hospital that refused to provide care because it was outside our domain,” she says. “After the fact, we can pursue how we might do it better the next time.” ■



## Report: Lyme disease is on the rise

A new report from the Atlanta-based Centers of Disease Control and Prevention (CDC) says there were more cases of Lyme disease in 2000 than in any previous reporting year.<sup>1</sup>

Lyme disease is the leading cause of vector-borne infectious disease in the United States, says **Carrie McCoy**, PhD, MSPH, RN, CEN, an associate professor of nursing at Northern Kentucky University in Highland Heights.

“Over 17,000 cases are reported annually, but it is believed that the disease is significantly underreported,” McCoy adds.

Here are effective ways to manage Lyme disease:

- **Know which patients are at risk.**

The highest rates were reported in children under age 15 and adults 30 and older, says McCoy. Lyme disease is caused by infected ticks found in temperate

regions with relatively high humidity, she adds.

The states with the highest reported annual incidence of Lyme disease are Connecticut, Rhode Island, New York, New Jersey, Delaware, and Pennsylvania, says McCoy. Lyme disease is most commonly transmitted to humans in May to July, she adds.

Ticks crawl onto humans when they brush against vegetation, explains McCoy.

“Ticks can attach to the body anywhere, but most often attach on more hidden parts of the body such as the groin, armpit, scalp, and where clothing is tight,” she explains.

Anyone who comes into contact with wooded, brushy, and grassy places is at highest risk for the disease, says McCoy. “In backyards, exposure to ticks is greatest in the woods and garden fringe areas, but ticks can be carried to lawns and gardens by animals,” she notes.

- **Know symptoms to watch for.**

Symptoms of Lyme disease vary, but the most common are a red, slowly expanding rash that looks like a bull’s eye, and flulike symptoms such as fatigue, fever, headache, muscle aches, and joint pain, says McCoy.

“Unfortunately, although common, the rash is seen in only 60%-80% of cases,” she notes.

She explains that symptoms usually appear within seven to 14 days, but may appear as early as three days and as late as 30 days after exposure. “Some infected individuals do not exhibit symptoms, or develop non-specific symptoms such as fever, headache, fatigue, and myalgia,” adds McCoy.

Untreated Lyme disease may lead to intermittent episodes of swelling and pain in the large joints; neurologic abnormalities including aseptic meningitis, facial palsy, radiculoneuritis, and encephalitis; and cardiac problems including heart block, myopericarditis, and cardiomegaly, she warns.

“These later manifestations may appear in some patients without a history of the earlier manifestations of the disease,” McCoy adds. “In some patients, Lyme disease morbidity may be severe, chronic, and disabling.”

- **Know latest diagnosis and treatment interventions.**

Diagnosis is based primarily on clinical findings, according to McCoy. However, serologic testing may give you supportive diagnostic information in patients with endemic exposure and objective clinical findings that suggest later stage disseminated Lyme disease, she notes.

“Unfortunately, an episode of Lyme disease does not confer immunity,” she says. “Once treated, it is possible for a person to be reinfected at a later date.”

Early disease is treated with three weeks of doxycycline, or amoxicillin, says McCoy. She adds that cefuroxime, axetil, or erythromycin are alternatives

## SOURCE

For more information, contact:

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for patients allergic to penicillin, or those who cannot take tetracyclines.

“Later disease is treated with intravenous ceftriaxone or penicillin for a month or more,” she says.

Because antibodies often persist for months or years following a treated or untreated infection, seroreactivity alone cannot be used as a marker for active disease, McCoy cautions.

“False negative results also are not uncommon,” she adds.

## Reference

1. Centers for Disease Control and Prevention. Lyme disease — United States, 2000. *MMWR* 2002; 51:29-31. ■



## JOURNAL REVIEWS

Karpas A, Hennes H, Walsh-Kelly CM. **Utilization of the Ottawa Ankle Rules by nurses in a pediatric emergency department.** *Acad Emerg Med* 2002; 9:130-133.

ED nurses can accurately use and interpret the Ottawa Ankle Rules, which are used to assess whether radiographic evaluation is needed for patients with acute ankle injuries. This can reduce the number of radiographs ordered for children with these injuries, says this study from the Medical College of Wisconsin in Milwaukee.

The hospital ED uses a protocol in which radiographs are ordered for all patients with ankle pain, swelling, deformity, or decreased range of motion prior to physician evaluation. In this study, 190 children with ankle injuries were assessed by the ED nurse, and the Ottawa Ankle Rules were applied to determine whether a radiograph was needed. The study found that the Ottawa Ankle Rules were

interpreted correctly by the nurse 98.4% of the time, and their use would have reduced the number of negative radiographs by 21%. The researchers report that the majority of nurses found the Ottawa Ankle Rules easy to use and interpret. **(See sample discharge instructions for Ankle Fracture in Children, inserted in this issue.)**

Only one child with negative Ottawa Ankle Rules results was found to actually have a fracture, but it was a Salter-Harris type 1 fracture that is typically identified clinically, not radiographically, note the researchers.

“Had the [Ottawa Ankle Rules] been part of the nursing protocol, this would have been the only subject with a fracture who did not have a radiograph requested prior to physician assessment,” they wrote. ■

Gray-Eurom E, Seaberg DC, Wears RL. **The prosecution of sexual assault cases: Correlation with forensic evidence.** *Ann Emerg Med* 2002; 39:39-46.

When caring for victims of sexual assault, EDs are obligated to provide not only medical treatment, but also a forensic examination for a possible legal defense, say researchers from the University of Florida Health Science Center in Jacksonville.

The study’s findings are based on 355 forensic examinations performed by the same nine examiners, using a standardized approach, each with an identified suspect and a known legal conclusion.

During the forensic examinations, trauma was evident in 202 (57%) of the cases, and spermatozoa were found in 110 (31%) of the cases. The presence of trauma strongly correlated with successful prosecution, and increased use of DNA analysis will increase the importance of spermatozoa detection for a successful prosecution, say the researchers. They recommend the following:

- Use of ready-made kits to facilitate evidence collection and paperwork.
- Use of the hospital laboratory to assist with spermatozoa detection if the examiner does not feel confident doing this.
- Careful documentation of weapon use and the use of force that can be testified to in court.

The researchers argue that the arrest and prosecution of the assailant is an important step in the recovery process for a rape victim. “It is essential for all health care providers performing forensic examinations to take accurate histories and to document detailed trauma findings for all victims of sexual assault,” they conclude. “The information gathered by a thorough forensic examination does make a difference in the legal outcome for cases of sexual assault.” ■



## Here's a strategy for NG tube placement

Try these tips for passing and proper placement of nasogastric (NG) tubes, recommends **Ellie Encapera**, RN, CEN, staff nurse at Hoag Memorial Hospital Presbyterian in Newport Beach, CA.

"To stiffen the tube, place the tube in an emesis basin of ice water," she says. "Cooling the lubrication, if possible, also helps with patient discomfort. Cool your tubes or packets in the med refrigerator."

### Don't use a too-large tube

First, look into each side of the nose with a flashlight and decide which side has the larger passageway, says Encapera. "Septal defects can be a problem, and forcing a tube too large for the passage causes pain, trauma, and bleeding," she warns.

After measuring nose tip to jaw tip for first stage placement in the posterior pharynx, lubricate the tube well, says Encapera. "Use Xylocaine if the patient denies allergies," she suggests.

With the patient's head erect or slightly extended, lift the tip of the tip of the nose and pass the tube through the largest of the two passages until you reach your first-stage measurement, Encapera says.

Next, with the patient sitting upright, ask him or her to flex his or her neck forward and place his or her chin on their chest. "Then offer ice water with a straw. Instruct the patient to 'sip and swallow,' and pass the tube with each swallow," Encapera says. "Keep encouraging the patient not to stop."

Encapera uses three methods of placement verification: placing the tip in a ¼ cup of water without bubbling from the tip with patient's expiration, aspiration of gastric contents, and auscultation of epigastric air instillation with a syringe.

*[Editor's note: For more information, contact Ellie Encapera, RN, CEN, Hoag Memorial Hospital Presbyterian, One Hoag Drive, Box 6100, Newport Beach, CA 92658-6100. Telephone: (949) 760-5890. E-mail: miselliern@socal.rr.com.]* ■

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## CE questions

**CE subscribers:** Please keep your monthly issues with the CE questions in order to take the two semester tests in June and December. A Scantron will be included in those issues, but the questions will not be repeated.

[For more information about the CE program, contact American Health Consultants at (800) 622-2421.]

13. Which of the following is an effective intervention for a pediatric seizure, according to Nancy Blake, RN, MN, CCRN, CNAA, director of critical care services at Children's Hospital?
  - A. Placing your fingers in the child's mouth to keep the airway open.
  - B. Holding down a child who is seizing.
  - C. Putting a child in a tub of cold water to bring fever down.
  - D. Using medication to bring fever down.
14. Which of the following sites fall under EMTALA's "250-yard rule," according to Stephen Frew, JD, risk manager at Physicians Insurance Co. of Wisconsin?
  - A. Private offices of independent physician practices.
  - B. Businesses not owned by the hospital.
  - C. Publicly owned retail establishments.
  - D. Hospital-owned parking garages.
15. Which of the following is true regarding Lyme disease, according to Carrie McCoy, PhD, MSPH, RN, CEN, an associate professor of nursing at Northern Kentucky University?
  - A. Symptoms always appear within seven days.
  - B. After one episode of Lyme disease, patients are immune.
  - C. Infected individuals may exhibit nonspecific symptoms such as fatigue and headache.
  - D. A red rash always appears within seven days of infection.
16. Which of the following is recommended to place nasogastric tubes, according to Ellie Encapera, RN, CEN, staff nurse at Hoag Memorial Hospital Presbyterian?
  - A. Place the tube in a basin of hot water.
  - B. Have patients flex their neck forward before passing the tube.
  - C. Warm nasogastric tubes prior to placement.
  - D. Lubricate the tube before placing in the posterior pharynx.

## CE objectives

After reading this issue of *ED Nursing*, the CE participant should be able to:

1. Identify clinical, regulatory, or social issues relating to ED nursing. (*Try these tips for pediatric seizures; Report: Lyme disease is on the rise; Which sites fall under the 250-yard rule?; Here's a strategy for NG tube placement in this issue.*)
2. Describe how those issues affect nursing service delivery.
3. Cite practical solutions to problems and integrate information into the ED nurse's daily practices, according to advice from nationally recognized experts. ■

# BIOTERRORISM WATCH

*Preparing for and responding to biological, chemical and nuclear disasters*

## Building a bridge over the abyss: Will bioterrorism help bring disjointed health system together?

*Getting in same boat as 'tsunami' of money builds*

Diverse and disjointed, the nation's public health and clinical settings have education needs and communication gaps that must be bridged if the system is to improve its response to bioterrorism, a group of consultants recently told the Atlanta-based Centers for Disease Control and Prevention (CDC).

The CDC's national center for infectious diseases is holding a series of meetings to assess the lessons of last year's anthrax attacks and begin to close the long-standing breach between public health and clinical medicine.

The gap may stem from differences between the private and public health care systems, both of which are fragmented and highly variable by geography and urban vs. rural settings, according to a CDC draft summary of the Jan. 7, 2002, consultants' meeting, which was obtained by *Bioterrorism Watch*.

### **Seeking collaboration**

"There was lot of [discussion] about the gap between public health, private practices, and hospitals and how to bridge that gap and make things more collaborative," said **William Scheckler**, MD, a consultant at the meeting and hospital epidemiologist at St. Mary's Hospital in Madison, WI. "[We need] to reduce some of the redundancies in the systems both in terms of preparing and education."

Scheckler also is a member of the CDC Healthcare Infection Control Practices Advisory

Committee (HICPAC), which met Feb. 25-26, 2002, in Atlanta.

Scheckler gave a report on the consultants' meeting, telling HICPAC members that the CDC had input from a broad range of bioterrorism groups and clinical specialties. There is a wealth of information scattered among these groups and on numerous web sites, he noted. For example, a dermatology group at the meeting has photographs of skin lesions that could be a good resource in an investigation of cutaneous anthrax.

"When an outbreak occurs, the same questions [arise]: What do people need to know? What is the best way to get out the information?" he said. "There should be one best-practices web page that you can go to."

The CDC currently operates several different clearinghouses for information as well as different public inquiry numbers. The agency now is considering the possibility of centralizing its clearinghouses and public inquiry services, the CDC report states.

"During the anthrax crisis, the CDC public inquiry system was overwhelmed, and therefore the agency set up a new system during the outbreak," the CDC report continues.

In addition, the CDC found that "during the attacks, the amount of information on anthrax increased from virtually nothing to an overwhelming number of e-mails, web sites, printed

This supplement was written by Gary Evans, editor of *Hospital Infection Control*. Telephone: (706) 742-2515. E-mail: [gary.evans@ahcpub.com](mailto:gary.evans@ahcpub.com).

documents, and other materials. Much of this information and work was duplicative.”

The consultants suggested that the CDC devise a strategy to centralize information development activities and then distribute the product, rather than having so many individuals working independently. (See CDC action items, below right.)

### **Linking the data base**

Regarding public health and clinical partnerships, a relatively simple system of linking health departments with hospital emergency departments (ED) was described by HICPAC member **Alfred DeMaria Jr., MD**, state epidemiologist at the Massachusetts Department of Public Health in Jamaica Plain.

Under the program, participating hospitals in the Boston area report their daily number of ED visits to the health department. The numbers are compared against emergency visits a week earlier and on the same date a year prior to detect surges that might suggest a bioterrorism event, he said.

The information is easily obtainable by the hospitals and can be submitted electronically to the health department without extra work. That is important because bioterrorism surveillance systems that are labor-intensive will likely falter as vigilance inevitably wanes, DeMaria noted.

The system has provided the secondary gain of improving communication between public health and clinical sectors. The threshold for investigation occurs at two orders of magnitude above baseline, which thus far has occurred with influenza ED visits and those associated with a large trauma event such as a bus crash, he said.

Sometimes, the threshold will be reached simply out of random chance, as ED visits increase for no single reason. “The question is, we don’t know how big an event has to happen [to be detected],” DeMaria said.

The CDC is interested in such bioterrorism surveillance systems, and also may seek to apply its existing hospital sentinel networks, including the National Nosocomial Infections Surveillance system, said **Steve Solomon, MD**, chief of special studies activity in the CDC division of healthcare quality promotion.

National concerns about patient safety and bioterrorism have created a “tsunami of money” to address such issues, Solomon told HICPAC members.

“We have a lot of concerns about the surveillance and response needs,” he said. “We are

seeking a small trickle of that tidal wave of funds.”

Ultimately, the CDC may help shape a national system or contribute to a “mosaic” of systems that track surrogate markers such as severity of illness in “real time,” he said.

The research and development needs for such a system are in the ballpark of \$120 million to \$180 million, which may be available in the current climate over the next four or five years, he said. There is considerable interest being expressed from health care-related industries in partnering with the CDC on such efforts.

“They are standing in line,” Solomon told HICPAC members. “The phone is ringing off the hook. We are trying to figure out who is the best partner.” ■

## **CDC gets plenty of advice for action**

*Clarify roles, make info user-friendly*

A recent consultants’ brainstorming session on education and communication needs for bioterrorism resulted in numerous suggestions to the Centers for Disease Control and Prevention (CDC) in Atlanta. Some of the points of information and recommended items for action included:

- ✓ Strengthen the CDC Health Alert Network e-mail notification system to ensure that all state and local health departments are involved.
- ✓ Make surveillance and reporting as automatic as possible, and do not depend on the clinician to initiate the report quickly.
- ✓ Because the CDC is recognized as an authoritative source for information provided through *Morbidity and Mortality Weekly Report* and press releases, the CDC web site should be changed to make it more user-friendly.
- ✓ Ruling out disease is the most important clinical issue, rather than identifying new cases of disease.
- ✓ Clarify roles when a criminal investigation is going to occur during a public health emergency.
- ✓ Develop a prototype disaster plan for use by communities and make it readily available.
- ✓ The cacophony of information is a problem. For clinicians, an appropriate tool would be a page of bulleted information necessary for the

clinical setting. This should be provided in addition to baseline information.

- ✓ The CDC smallpox plan is a good model for allowing outside review during the development phase.
- ✓ Identify additional ways for using communication technology, particularly e-mail, to link local resources together. ■

## Was anthrax mailer a bioweapons researcher?

*'This has military lab stamped all over it'*

Given the difficulty of creating high-quality anthrax in a civilian research lab, the original source of the *Bacillus anthracis* that killed five people last year was likely a U.S. bioweapons facility, the president of the American Society of Microbiology (ASM) tells *Bioterrorism Watch*.

"Given the high quality of the preparation that was used, this has military laboratory stamped all over it," says **Abigail Salyers**, PhD, ASM president and a professor of microbiology at the University of Illinois in Urbana-Champaign.

The U.S. bioweapons program was formally disbanded as part of a global treaty in the early 1970s, but many military labs remained open for "biodefense" research to counter bioterrorism, she says. "These anthrax spore preparations last for decades," Salyers says.

### **Anthrax mailer is 'criminal, but not stupid'**

The atmosphere of a university research lab is too open and freewheeling for someone to produce anthrax undetected, she says. Salyers' personal theory is that someone who worked in a military bioweapons laboratory stole the anthrax, possibly years ago.

"It's anybody's guess as to what is going on here, but I would be astounded if this came out of a university laboratory," she says. "[This person] is crazy, criminal, but not stupid. I can't imagine that anybody who was going to do that would take the trouble and risk of trying to do that in a university laboratory environment."

In a related matter — despite a published report to the contrary — the Federal Bureau of Investigation denies it has narrowed its anthrax

investigation to a former scientist in a U.S. bioweapons lab.

A FBI spokeswoman at the agency's national office in Washington, DC, told *Bioterrorism Watch* that the agency has not identified "a prime suspect" in the hundreds of interviews it has conducted in the investigation.

A story that was published in the Feb. 25, 2002, *Washington Times* reported that the FBI's search was focusing on a former U.S. scientist who worked at a government bioweapons laboratory. The government's chief suspect, the article reported, is believed to have worked at the U.S. Army Medical Research Institute of Infectious Diseases at Fort Detrick, MD, which has maintained stores of weapons-grade anthrax. No charges had been filed as this issue of *Bioterrorism Watch* went to press.

### **Do you know this person?**

Salyers described her theory on the case — before the newspaper report was published — when the FBI openly solicited help from the ASM in the investigation. In a message appealing for help from ASM members, **Van Harp**, assistant director of the FBI's Washington, DC, field office, said "a single person" is most likely responsible for the mailings. "It is very likely that one or more of you know this individual," he told ASM members.

A \$2.5 million dollar award is offered to anyone providing information that leads to an arrest of the bioterrorist. The FBI profile describes a socially withdrawn person who has "a clear, rational thought process" and is very organized. "The perpetrator might be described as 'stand-offish' and likely prefers to work in isolation as opposed to a group/team setting," Harp told the ASM. It is possible the mailer used off-hours in a laboratory or may have even established an improvised, concealed facility to produce the anthrax, the FBI profile noted.

"The person is experienced working in a laboratory," Harp told the ASM. "Based on his or her selection of the Ames strain of *Bacillus anthracis*, one would expect that this individual has or had legitimate access to select biological agents at some time. This person has the technical knowledge and/or expertise to produce a highly refined and deadly product."

Indeed, the Ames strain used in the attacks has been used in bioweapons research both in the United States and worldwide, Salyers says. In

addition, given the elaborate research protocol required, it is unlikely a university laboratorian creating anthrax would go undetected no matter how “standoffish” he or she was.

“I’m just telling you what you have to go through if you were crazy enough to be a bioterrorist,” Salyers says. “If a deranged scientist tried to do this in a university laboratory, red flags would be going up all along the way.”

### **Recipe for disaster**

The first step — cultivating the bacteria and producing spores — is something that almost any microbiologist could do, she says.

“But you get this slush, and that is not going to hurt anybody,” she says. “There are people who will tell you that you can do this the hard way with a mortar and pestle and grind it up in the laboratory. But it is clear that the powder that was in the letters was a much higher quality than that.”

The anthrax “slush” must be ground into a fine powder to be capable of getting past human respiratory defenses. “The machinery for doing this is mostly in military research laboratories,” Salyers says. In addition, sophisticated treatment of the spores must be done to defeat their general property of clumping and sticking together.

“You would want to treat the spores so that they don’t stick together and also so that you get a preparation that is very volatile — goes into the air and stays in the air,” she adds.

Regardless of whether the mailer worked in a military lab or other facility, there is growing consensus that the attacks were not the work of foreign terrorists.

“The current thinking among many people is that this is a domestic event that kind of occurred in the slipstream of 9/11,” says **William Schaffner**, MD, ASM member and chairman of preventive medicine at the Vanderbilt University School of Medicine in Nashville, TN.

“The [FBI profile] characteristics don’t seem terribly surprising. They seem akin to the kind of characteristics that were part of the picture of [the Unabomber] Ted Kaczynski — a disgruntled person who is very bright, and in this instance, has a substantial amount of professional and technological expertise in order to carry this off.”

*[Editor’s note: Those who think they may have information relevant to the case can contact the FBI via telephone at (800) CRIME TV — (800) 274-6388 — or via e-mail: Amerithrax@FBI.gov.] ■*

## **Bioterrorism forensics: The burden of proof**

*If bug does not fit, you must acquit?*

Already asked by federal investigators to assist in finding the anthrax mailer, the American Society of Microbiology (ASM) is taking the next step and discussing the emerging science of bioterrorism forensics.

Despite an impressive array of scientific methods, primarily used in health care epidemiology and outbreak investigations, linking a pathogen to a terrorist will not be easy.

“You want to trace it back to the ‘smoking gun,’” says **Abigail Salyers**, PhD, ASM president and a professor of microbiology at the University of Illinois in Urbana-Champaign. “We know how to tell what bullet came from what particular gun. But when it is bacteria, viruses, or other microorganisms we really don’t have established forensics for that.”

To address the issue, the ASM will hold meetings later this year that may result in a booklet on how to use molecular epidemiology techniques to establish a chain of evidence rather than identify the source of an outbreak, she says.

The methods typically used by outbreak investigators include DNA fingerprinting and pulsed-field gel electrophoresis. But using such methods to link a bioterrorist to a biological weapon would be unprecedented, Salyers notes. “Suppose they find somebody [who] might have perpetrated the [anthrax attacks], and they find some spores on that person or the immediate environment.”

“Trying to prove that that is the [exact strain] will be unprecedented. It is not just a question of finding the person. It is a question of what are going to be the legally binding types of evidence,” Salyers explains.

Another problem in the anthrax attacks is the separation of act and outcome, she says. As opposed to a bomb exploding and leaving an immediate impact, the anthrax mailer had time to dispose of evidence after the mailings.

“You have a perpetration of an act and the consequences of the act separated by nearly a month,” she says. “There has been a lot of time for the perpetrator to cover up tracks. This is very different from putting nerve gas into a subway system, where the cause and effect are very close together,” Salyers adds. ■



*Source:* United Hospital Medical Center, Port Chester, NY.

